Dispersion formula in a metal model of a molecule with conjugated bonds. (Cont.) 51-3-22/24

calculated value is 10 times too large because the frequency of the D-line of sodium is close to the natural frequency of an allowed $C_{10}H_{12}$ electronic transition. The benzene molecule is represented by a circle of radius $R = 3a/\pi$, where again a = the length of the C-C bond. The results for the polarizability at the D-line of sodium agree well with the experimental values.
There are 2 tables and 4 references, 3 of which are Slavic.

SUBMITTED: October 12, 1956.

ASSOCIATION: Physics Department, Leningrad State University. (Fizicheskiy Fakul'tet Leningradskogo Gosudarstvennogo Universiteta).

AVAILABLE:

Card 2/2

24(5)
AUTHORS: Adamov, M. N., Orlov, B. I.

SOV/54-58-4-18/18

TITLE: Computation of the Polarizability of π-Electrons on the Basis of a Metallic Model With δ-Shaped Potential Sources (Raschet polyarizuyemosti π-elektronov na osnove metallicheskoy modeli s δ-obraznymi istochnikami potentsiala)

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, 1958, Nr 4, pp 182-187 (USSR)

ABSTRACT: The most simple metallic model holds only in the case of a constant potential in the system of the conjugate bonds. In the real molecule for the model a step-like potential is assumed and in a boundary case as a model with δ-shaped potential sources in the points where an atom is located. The computation of the polarizability (according to references 1-3), which holds for any type of model, permits also for the model under investigation with δ-shaped potential sources the solution of the Schrödinger equation corresponding to it. This is carried out on the basis that the i-source contributes $u_i = -g\delta(s-s_i)$ to the potential energy of the electron, with $\delta(s-s_i)$ denoting Dirac

Card 1/2
USCOMM-DC-60,884

Computation of the Polarizability of π-Electrons on the Basis of a Metallic Model With δ-Shaped Potential Sources

δ-function, s - the coordinate along the outline of the model, s_i - the value of s at the location point of the source, g - a parameter expressing the intensity of the source. The expression for the polarizability α is formed from $\psi^{(0)}$, the wave function unperturbed by the external electric field and $\psi^{(1)} = \left(\frac{\partial \psi}{\partial F}\right)_{F=0}$ with ψ, the wave function perturbed by the field. $\alpha = -2\int \psi^{(0)} \psi^{(1)}$ ds. The expression for the π-electron-polarizability is obtained by the further mentioned connections and as a function of the source intensity g, the energy-parameters ω_k and λ_n and the dimensions of the model. A computation, carried out according to the given formulae for benzene which can be regarded as a hexagonal model with six potential sources (each potential source has the value $g = 0.733$) represents the value of the π-electron-polarizability $\alpha = 59.2$ which is in the same hexagonal model without potential sources only $\alpha = 47.0$. There are 5 references, 4 of which are Soviet.

Card 2/2

ADAMOV, M.N.; ORLOV, B.I.

Calculation of the polarizability of π-electrons on the basis of a metallic model with S-shaped field source [with summary in English]. Vest. LGU 13 no.22:182-187 '58. (MIRA 12:4)
(Electrons) (Wave mechanics)

AUTHORS: Adamov, M. N., Veselov, M. G., Rebane, T. K. SOV/48-22-9-1/4o

TITLE: The Electric and Magnetic Properties of Molecules With Complicated Structure Calculated on the Basis of the Free-Electron Model (Raschety elektricheskikh i magnitnykh svoystv slozhnykh molekul na osnove modeli svobodnykh elektronov)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1958, Vol 22, Nr 9, pp 1o15 - 1o18 (USSR)

ABSTRACT: The authors succeeded in computing the polarizability and the diamagnetic susceptibility of π-electrons on the basis of the simple model of the free electrons. The polarizability α of atoms and molecules usually is computed by perturbational methods. For the computation of the π-electron longitudinal polarizability of the polyenes $C_{2n}H_{2n+2}$ the formulae

Card 1/4

$$\alpha_n(\omega) = \frac{4E_n}{L\omega^4}\left[p_n \frac{(-1)^n - \cos p_n L}{\sin p_n L} + \frac{(-1)^n - \cos q_n L}{\sin q_n L}\right] - \frac{1}{\omega^2} \quad (2)$$

and

$$\alpha_n(0) = \frac{L^4}{12\pi^4 n^2}(15 - \pi^2 n^2) \quad (3)$$

were employed. The results, together with the results obtained by Bolton (Ref 1), are listed in table 1. The polarizability of the electrons was also determined for the case of a ring-shaped and a hexagonal molecule. A simple mathematical scheme was worked out, which allows to determine the wave function and the energy spectrum of the π-electrons in the magnetic field very exactly. If the one-dimensional potential of the conjugate bonds is everywhere equal to zero, the problem is represented by the determination of the eigenvectors

Card 2/4

of the Hermitian matrix. The energy spectrum of the π-electrons in the magnetic field and their diamagnetic susceptibility are determined according to the secular equation det W = 0. This computation method of the diamagnetic susceptibility can be extended also to the case of a variable one-dimensional potential. The method allows to consider the influence of the intramolecular periodic field as well as the deviations from the periodicity. Starting from the matrix-formulation of the problem the connection between the methods of the free electrons and of the molecular orbits was investigated. The agreement of the energy spectra shows by means of the results obtained by the semi-empirical method due to Pariser, Parr and Pople (Ref 4)that the depth of the potential well in the place where the atom j is situated is given by the equation $V_j = \frac{1}{2}\left[(2 - q_j)I_j + q_j\varepsilon_j\right] - N_j\beta$. This equation validates

Card 3/4 the semi-empirical formula suggested by Veselov and

Rekasheva (Ref 5). This formula describes the relation between the shape of the bottom of the potential well in conjugate molecules which contain hetero-atoms, and the potentials of the electron affinity and the ionization of single atoms. There are 2 tables and 5 references, 2 of which are Soviet.

ASSOCIATION: Leningradskiy gos. universitet im. A. A. Zhdanova (Leningrad State University imeni A. A. Zhdanov)

AUTHOR: Adamov, M. N. SOV/76-32-9-21/46

TITLE: Calculation of the π-Electron Polarizability Tensor for Butadiene and Benzene Molecules (Raschet tenzora polyarizuyemosti π-elektronov v molekulakh butadiyena i benzola)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 9, pp 2087 - 2093 (USSR)

ABSTRACT: The components of the tensor for trans-butadiene amount to $(\alpha_{xx})_\pi = 54,0$ $(\alpha_{yy})_\pi = 2,6$ $(\alpha_{xy})_\pi = 9,0$ in atomic units. Basis of the calculation was the metallic model. The accepted coordinate system corresponds to the symmetry axes (x and y correspond to S_2, the x-axis goes through the center of the C-C-bond; z corresponds to C_2).

The result for benzene was $\alpha_\pi = 47,0$ for the hexagonal model; $\alpha_\pi = 50,7$ for the circular model. The approximate formula is verified for the α_π of benzene, as well as at $(\alpha_{xx})_\pi$ and $(\alpha_{xy})_\pi$ of butadiene, though only the transition with minimal excitation is under consideration. The approximate value of $(\alpha_{yy})_\pi$ of butadiene corresponds to

Card 1/2

the true value if the two following transitions are taken into account. Collaborators were the students of physics I. S. Milevskaya and B. I. Orlov. There are 2 figures, 1 table, and 7 references, 5 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova (Leningrad State University imeni A. A. Zhdanov)

SUBMITTED: April 5, 1957

Adamov, M. N.

S/020/60/133/02/17/068
B019/B060

AUTHOR: Adamov, M. N.

TITLE: Integral Representation of the Dispersion Formula for a Hydrogen Atom in the Ground State

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 2, pp. 315-317

TEXT: The quantum-theoretical expression (1) for the optical polarizability of a hydrogen atom or of a hydrogen-like ion in the ground state is written down in the introduction. The ordinary dispersion formula (3) is obtained by expanding the function $\psi(\vec{r};\omega)$ according to the eigenfunctions of the operator H_0. Calculations according to this formula are very difficult because of their slow convergence, and it is shown here that it is possible to construct an integral representation of the dispersion formula. Formula (4) is set for $\psi(\vec{r};\omega)$, and is substituted into (2). Finally, equation (14) is obtained for the dispersion formula with the aid of a Laplace transform. The calculation

Card 1/2

Integral Representation of the Dispersion Formula for a Hydrogen Atom in the Ground State

S/020/60/133/02/17/068
B019/B060

of the polarizability for low frequencies of the electric field is discussed next. This closed representation of the dispersion formula can also be obtained for excited states of the hydrogen atom, but complications arise due to degeneration.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova (Leningrad State University imeni A. A. Zhdanov)

PRESENTED: March 25, 1960, by V. A. Fok, Academician

SUBMITTED: March 2, 1960

VC

Card 2/2

ADAMOV, M.N.; KAGAN, V.K.; ORLOV, B.I.

Dispersion formula for an electron in a potential well of finite depth and the optical polarizability of molecules. Opt. i spektr. 10 no.2:276-279 F '61. (MIRA 14:2)
(Electrons) (Molecules—Optical properties)

89218
S/056/61/040/001/024/037
B102/B212

24.4500

AUTHORS: Adamov, M. N., Zubkov, V. A.

TITLE: A comment to the variational calculation of polarizability

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 40, no. 1, 1961, 246-248

TEXT: In the derivation of Kirkwood's formula and similar variational formulas for polarizability the requirements which result from the orthogonality of the perturbed wave functions, were not considered. These formulas therefore give a higher value of the polarizability of excited electron states. The authors' aim is to show that if these requirements are taken into account when setting up the trial function for variational calculation of the electron polarizability in the excited state, results are obtained which agree well with exact values, (i.e., they approach them from below). The variational problem of determining the polarizability $\alpha_i = -2E_i^{(2)}$ for the i-th electron state is formulated as follows: $E_i^{(2)} = J\left[\Psi_i^{(1)}\right]_{min} = \int \Psi_i^{(1)}(H_o - E_i^{(0)})\,\Psi_i^{(1)}d\tau + 2\int \Psi_i^{(1)} z \Psi_i^{(0)} d\tau$; the

Card 1/4

A comment to the variational ...

normalization of the perturbed function Ψ_i results in $\int \Psi_i^{(1)} \Psi_i^{(0)} d\tau = 0$, and the orthogonality of the functions Ψ_i with respect to Ψ_k (describing a state lower in energy than the i-th state) yields $\int \Psi_i^{(1)} \Psi_i^{(0)} d\tau = -\int \Psi_k^{(1)} \Psi_i^{(0)} d\tau = z_{ik}/(E_i^{(0)} - E_k^{(0)})$. The polarizing field is assumed to be along the z-axis. The Euler equation $(H_o - E_i^{(0)})\Psi_i^{(1)} = (\lambda_i - z)\Psi_i^{(0)} + \sum_k \lambda_k \Psi_k^{(0)}$, with $\lambda_i = E_i^{(1)} = z_{ii}$ and $\lambda_k = 0$ checks with the perturbation theoretical equation for $\Psi_i^{(1)}$. Substituting $\varphi_i = [f_i - (f_i)_{ii}]\Psi_i^{(0)}$, $(f_i)_{ik} = \int \Psi_i^{(0)} f_i \Psi_k^{(0)} d\tau$, yields $\varphi_i = [f_i - (f_i)_{ii}]\Psi_i^{(0)} + \sum_k c_{ik}\Psi_k^{(0)}$, where $c_{ik} = z_{ik}/(E_i^{(0)} - E_k^{(0)}) - (f_i)_{ik}$. When introduced into the initial equation this gives:

$$E_i^{(2)} \leq J[\varphi_i]_{min} = 2\left[(z - z_{ii}) + \frac{1}{4}(\text{grad } f_i)^2\right]_{ii} + 2\sum_k c_{ik}\left[(E_k^{(0)} - E_i^{(0)})f_i + \right.$$

Card 2/4

A comment to the variational ...

$+ z\Big]_{ik} + \sum_k c_{ik}^2 (E_k^{(0)} - E_i^{(0)})$. For $f_i = \alpha_i z$ one obtains instead of the Kirkwood formula (8): $\alpha_i = 4\left[z_{ii}^2 - (z_{oo})^2\right]^2$, a new variational formula (9): $\alpha_i = 4\left[z_{ii}^2 - (z_{ii})^2 - \sum_k (z_{ik})^2\right]^2 / \left[1 + 2\sum_k (E_i^{(0)} - E_k^{(0)})(z_{ik})^2\right] - 2\sum_k (z_{ik})^2 / (E_i^{(0)} - E_k^{(0)})$. Several values of the polarizabilities $\alpha_{n_1 n_2 m}$ of hydrogen states computed by using formulas (8) and (9) (the first two lines) are compared with exact values in Table 1 (last line). Parabolic quantum numbers n_1 and n_2 and the magnetic quantum number m characterize the state; Table 2 shows analogous values for several states of an electron moving in an infinitely deep potential well having a length of $l = 10$ atomic units (α_n is the polarizability of a state characterized by the quantum number n). The new formula, unlike the Kirkwood formula, always gives values that do not exceed the exact ones. The formula can be used to calculate the polarizability of many electron systems. Finally, it is pointed out that taking the orthogonality of the perturbed wave functions into account should also be important in other variational calculations of quantities in second

Card 3/4

S/056/61/040/001/024/037
B102/B212

A comment to the variational...

perturbation-theoretical approximation. There are 2 tables and 5 references: 2 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: July 14, 1960

Table 1 and 2

Таблица 1

	a_{000}	a_{110}	a_{001}	a_{200}	a_{110}	a_{101}	a_{002}
По формуле (8)	4	196	144	2916	2916	2450	1296
По формуле (9)	4	148	144	1402	1590	1477	1296
Точное значение	4,5	168	156	1620	1741	1620	1377

Таблица 2

	a_1	a_2	a_3	a_4
По формуле (8)	42,7	199,7	241,5	257,0
По формуле (9)	42,7	—14,0	—8,5	—5,3
Точное значение	43.9	—13,1	—7,8	—4,8

Card 4/4

ADAMOV, M.N.; TUPITSYN, I.F.

Theoretical study of reactivity in substitution reactions of molecules with conjugate bonds using the free electron method. Part 1. Alternant and nonalternant hydrocarbons. Vest. LGU 17 no.16:47-57 '62. (MIRA 15:9)
(Chemical reactions) (Hydrocarbons)

ADAMOV, M.N.; TUPITSYN, I.F.

Theoretical study of reactivity in substitution reactions of molecules with conjugate bonds using the free electron method. Part 2. Six-membered nitrogen heterocycles. Vest. LGU 17 no.16:58-65 '62. (MIRA 15:9)

(Chemical reactions) (Heterocyclic compounds)

ADAMOV, M.N.; TUPITSYN, I.F.

Theoretical study of reactivity in substitution reactions of molecules with conjugate bonds using the free electron method. Part 3. Five-membered nitrogen heterocycles. Vest.LGU 17 no.22:113-118 '62. (MIRA 15:12)

(Nitrogen compounds)

L 11117-63 EWT(1)/BDS AFFTC/ASD

ACCESSION NR: AP3002781 S/0051/63/014/006/0737/0744

AUTHOR: Adamov, M. N.; Kagan, V. K.; Orlov, B. I. 21 5

TITLE: New method for calculating the optical polarizability of the hydrogen atom

SOURCE: Optika i spektroskopiya, v. 14, No. 6, 1963, 737-744

TOPIC TAGS: optical polarizability, atomic hydrogen

ABSTRACT: Starting with the quantum-dispersion theory expression for the polarizability as a function of the radiation frequency, the authors deduce an integral representation of this formula applicable to the hydrogen atom and one-electron ions. The integral expression was used to calculate the polarizabilities of the hydrogen atom in the ground state and in low-lying excited states with n = 2. For the ground state, with increase of the frequency of the radiation from 0 to 3/8 atomic units the polarizability increases monotonically. At this first natural frequency (3/8 atomic units) the function has a discontinuity and changes sign; further the polarizability again increases and goes to zero when the frequency equals about 0.404 atomic units. Thus, radiation of this frequency should pass through atomic hydrogen without refraction. The behavior of the polarizability as a function of the radiation frequency for hydrogen in low-lying excited states

Card 1/4

L 11117-63
ACCESSION NR: AP3002781

0

is similar, but the natural frequencies corresponding to discontinuities are different. Orig. art. has: about 66 formulas and two tables.

ASSOCIATION: none

SUBMITTED: 060ct62 DATE ACQD: 15Jul63 ENCL: 02

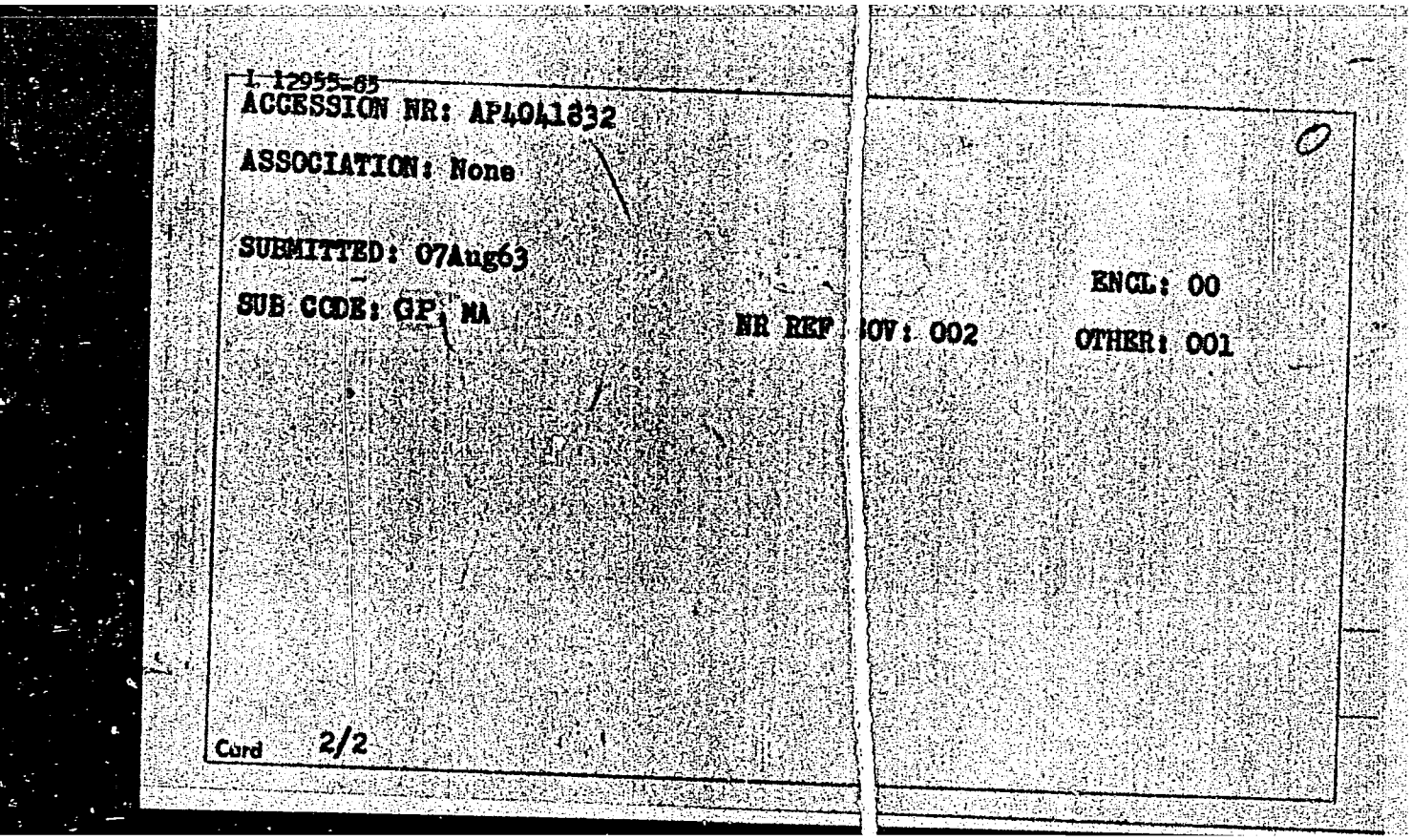
SUB CODE: oo NO REF SOV: 002 OTHER: 001

Card 2/2

ADAMOV, M. N.; KAGAN, V. K.; REBANE, T. K.

Calculating the Stark effect in the hydrogen atom. Vest. LGU 19 no.10:31-39 '64. (MIRA 17:7)

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000100320007-8"



L 12955-65
ACCESSION NR: AP4041832

ASSOCIATION: None

SUBMITTED: 07Aug63

SUB CODE: GP, MA

NR REF [illegible]OV: 002

ENCL: 00

OTHER: 001

Card 2/2

ADAMOV, M.N.; EVARESTOV, R.A.

Calculation of single-electron three-center integrals. Zhur. strukt. khim. 5 no.5:759-764 S-O '64 (MIRA 18:1)

1. Fizicheskiy institut Leningradskogo gosudarstvennogo universiteta.

ADAMOV, M.N.; KAGAN, V.K.; ORLOV, B.I.

Calculating the optical polarizability of the hydrogen atom by means of a power series. Opt. i spektr. 19 no.2:300-302 Ag '65. (MIRA 18:8)

ADAMOV, M.N.; REBANE, T.K.; EVARESTOV, R.A.

Variational estimation of values computed in the second approximation of the perturbation theory. Teor. et. i eksper. khim. 1 no.5: 588-594 S-O '65 (MIRA 19:1)

1. Fizicheskiy institut Leningradskogo gosudarstvennogo universiteta. Submitted June 23, 1965.

L 04758-67 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) GG/JD

ACC NR: AP6025963 SOURCE CODE: UR/0051/66/021/001/0106/0107

AUTHOR: Adamov, M. N.; Ob"yedkov, V. D.

ORG: none

TITLE: Quadrupolar and polarization potentials of the hydrogen molecule

SOURCE: Optika i spektroskopiya, v. 21, no. 1,1966, 106-107

TOPIC TAGS: perturbation theory, electron polarization, hydrogen atom reaction, quantum mechanics

ABSTRACT: The role of the quadrupolar and polarization potentials in the quantum-mechanical calculation of collisions using second order perturbation theory was investigated. Consider the system e-H_2. The total energy $E(r) = E_1(r) + E_2(r)$, where E_1 is the energy calculated from first order perturbation theory and E_2 that calculated from second order perturbation theory. E_1 is dominant both as r approaches zero and as r approaches infinity. However, the polarization potential E_2 becomes dominant beginning at distances $r \geq r_0 = 2.5$ atomic units and continues to exceed E_1 up to a distance r_0 at which point E_2 starts to become negligible again. In calculating E_1 using a Weinbaum wave function and elliptical coordinates one finds that:

$$E_1(r) \sim \left[-d^2 + \frac{d^2}{\beta+\gamma S}\left(\beta + \frac{1}{5}\gamma S\right)\right]\frac{P_2(\cos\theta)}{2r^3} = -\frac{4}{5}\frac{d^2\gamma S}{\beta+\gamma S}\frac{P_2(\cos\theta)}{2r^3} \equiv \frac{QP_2(\cos\theta)}{2r^3}.$$

Card 1/2 UDC: 539.192 : 546.11.01

L 04758-67

ACC NR: AP6025963

where d = 1.42, ρ = 1.694, S = 0.672, γ = 1.228, β = 1.409 and P_2 is the Legendre function. The first term in the brackets is the nuclear quadrupole term and the second is the electron quadrupole term while Q is the total moment. The experimentally determined value of $Q_{electron}$ = 1.19±0.07 while in this calculation $Q_{electron}$ = 1.42 and Q = -0.596. E_2 was calculated to be:

$$E_2(r) \sim -\frac{1}{2}\alpha(\nu) r^{-4} + 0(r^{-6}),$$

where $\alpha_{\nu=0}$ = 4.9, $\alpha_{\nu=1}$ = 6.5, $\bar{\alpha} = \frac{1}{3}(\alpha_{\nu=1} + 2\alpha_{\nu=0})$ = 5.4. Taking into account the slight dependence of α on ν one finally obtains the equation for the total energy:

$$E(r) \sim \frac{Q}{2r^3} P_2(\cos\vartheta) - \frac{\bar{\alpha}}{2r^4} + 0(r^{-5}).$$

Therefore, in the direction perpendicular to the molecular axis (ν = 0) E_1 becomes larger than E_2 when $r \geq 18$. Thus in the scattering region the polarization potential does not play a smaller role than the quadrupolar term and must be taken into consideration. Orig. art. has: 5 formulas. [14]

SUB CODE: 20, 07 / SUBM DATE: 24Nov65 ORIG REF: 001 OTH REF: 003

kh

Card 2/2

ACC NR: AP6036952 (A, N) SOURCE CODE: UR/0181/66/008/011/3173/3176

AUTHOR: Adamov, M. N.; Ledovskaya, Ye. M.; Rebane, T. K.

ORG: Leningrad State University im. A. A. Zhdanov (Leningradskiy gosudarstvennyy universitet)

TITLE: Variational calculation of the polarizability of the F-center in alkali halide crystals (point lattice approximation)

SOURCE: Fizika tverdogo tela, v. 8, no. 11, 1966, 3173-3176

TOPIC TAGS: F center, alkali halide, variational method, ground state

ABSTRACT: In order to calculate atomic shifts and frequencies of local oscillations in crystals with defects, it is necessary to estimate the static polarizability α of the defects and ions of the crystal base; this was done both from above and from below. A variational method of the perturbation theory was used to find, in the point lattice approximation, the narrow interval in which is located the value of the polarizability of the F-center corrresponding to the model potential V(r). The following wave function was used to describe the ground state of the F-center:

$$\psi_{1s} = \sqrt{\frac{\gamma^3}{7\pi}} e^{-\gamma r}(1 + \gamma r).$$

Optimum values of parameter γ for NaCl crystals were determined from the requirement

Card 1/2

ACC NR: AF6036952

of minimum energy of the electron described by this function and located in the field of a nonpolarizable point lattice with an anion vacancy. The excitation energy $\epsilon = E_{1p} - E_{1s}$ was found to be

$$\frac{1}{6}\gamma^2 \leqslant \epsilon \leqslant \frac{5}{18}\gamma^2.$$

The estimate from above gave $\alpha \geqslant \frac{15.523}{\gamma^4}$, and the estimate from below, $\alpha \leqslant \frac{15.556}{\gamma^4}$

The two sets of estimates for various alkali halide crystals are tabulated. It is concluded that the variational calculation gave a precise value of the polarizability of the ground state of the electron moving in a field with potential V(r). Since, however, the model potential V(r) describes the F-center only approximately, the results of the calculation may differ from the actual value of the polarizability of the F-center, being probably somewhat high. The numerical calculations were performed with a BESM-2 computer, and the program for calculating the optimum value of parameter γ was written by B. Ya. Frezinskiy. Authors are grateful to I. V. Abarenkov for discussing the work. Orig. art. has: 1 table and 11 formulas.

SUB CODE: 20/ SUBM DATE: 08Feb66/ ORIG REF: 005/ OTH REF: 003

Card 2/2

ADAMOV, N. S.

"On the Clinical Observations of Primary Cancer of the Liver"

Terapevticheskiy Arkhiv 25:50-52, 1953, USSR

abs

B-80127, 2 Nov 54

ADAMOV, N.T.

Effect of intraosteus blood transfusions and injection of therapeutic serum on blood proteins and their fractions in tuberculosis. Dokl. AN Uz. SSR no.2:63-65 '58. (MIRA 11:5)

1.Okruzhnoy voyennyy gospital'. Predstavleno akad. AN UzSSR A.Yu. Yunusovym.

(Tuberculosis research) (Blood)

ADAMOV, N.T.; BERGOVSKIY, I.Ye.

Expelling ascarids and whipworms by the use of oxygen in patients with tuberculosis. Uzb.biol.zhur. no.5:69-73 '58. (MIRA 12:1)

1.-Okruzhnoy voyennyy gospital' Turkmenskogo voyennogo okruga.
(OXYGEN--THERAPEUTIC USE) (NEMATODA) (ASCARIDS AND ASCARIASIS)

ADAMOV, N.T.; NIKISHIN, K.Ye., kand. med. nauk.; SHUMAKOV, F.K.

Diagnostic value of spot roentgenography in pulmonary tuberculosis.
Vest. rent. i rad. 33 no.6:19-22 N-D '58. (MIRA 12:1)
(TUBERCULOSIS, PULMONARY, diag.
aimed x-ray (Rus))

ADAMOV, N.T.

Intra-osseous blood transfusions in pulmonary tuberculosis and their effectiveness [with summary in French]. Probl.tub. 36 no.1:64-67 '58. (MIRA 11:4)

1. Iz Tashkentskogo okruzhnogo voyennogo gospitalya.
(TUBERCULOSIS, PULMONARY, ther.
blood transfusion, intraosseous admin. (Rus))
(BLOOD TRANSFUSION, in vraious dis.
pulm. tuber., intraosseous admin. (Rus))

ADAMOV, N. T.: Master Med Sci (diss) -- "Intraosteal transfusions of blood and therapeutic serum in pulmonary tuberculosis and their effect on hematopoiesis and certain biochemical indexes". Samarkand, 1959. 20 pp (Samarkand State Med Inst im Acad I. P. Pavlov), (KL, No 14, 1959, 122)

ADAMOV, N. V.

Sur quelques proprietes des integrales d'une equation du second ordre a coefficients periodiques. C.R. Acad. Sci., 197 (1933), 1280-1282.

SO: Mathematics in the USSR, 1917-1947
edited by Kurosh, A.G.,
Markushevich, A.I.,
Rashevskiy, P.K.
Moscow-Leningrad, 1948

ADAMOV, K. I.

Geometricheskiy smysl usloviya ustoychivosti Lyapunova. Dan, 2 (1936), 261-264
Nekotoryye Dostatochnyye usloviya ustoychivosti. Dan,2 (1.1), 247-251
Sur l'oscillation des inte'grales do l'equation du duexie'me ordre aux coefficients periodiques et sur quelques conditions do la Stabilite. Matem. Sb., 42 (1935), 651-668
Nekotoryye svoystva preobrazovaniy, ne menyayushchikh integral'nuyu krivuyu uravneniya pervogo proyadka. Dan, 29 (1940) 539-543.

SO: Mathematics in the USSR, 1917-1947
edited by Kurosh, A.G.,
Markushevich, A.I.,
Rashevskiy, P.K.
Moscow-Leningrad, 1948

ADAMOV, N. V.

Ob odnom metode posledovatel'nykh priblizheniy. DAN, 18 (1938), 219-224.

SO: Mathematics in the USSR, 1917-1947
edited by Kurosh, A.G.,
Markushevich, A.I.,
Rashevskiy, P.K.
Moscow-Leningrad, 1948

ADAMOV, N. V.

O nakhozhdenii periodicheskikh resheniy obyknovennogo differentsial'nogo uravneniya pervogo poryadka metodom posledovatel'nykh p'riblizheniy. DAN, 19 (1938), 15-20.

SO: Mathematics in the USSR, 1917-1947
edited by Kurosh, A.G.,
Markushevich, A.I.,
Rashevskiy, P.K.
Moscow-Leningrad, 1948

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000100320007-8"

ADAMOV, O.V., inzh., red.; GELIN, M.M., inzh.,red.; MUNITS, A.P., red.izd-va; LAGUTINA, I.M., tekhn.red.

[Standard technological charts for installing interior gas pipelines] Tipovye tekhnologicheskie karty na montazh vnutr

KARASEV, A.P., inzh.; LISITSYN, S.N., inzh.; MAZO, A.V., inzh.; ADAMOV, O.V., inzh., red.; GELIN, M.M., inzh., red.; MUNITS, A.P., red.izd-va; LAGUTINA, I.M., tekhn.red.

[Standard technological designs for the plumbing of interior cold and hot water-supply and sewerage systems] Tipovye tekhnologicheskie karty na proizvodstvo rabot po montazhu sistem vnutrennego kholodnogo i goriachego vodosnabzheniia i kanalizatsii. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1958. 43 p. (MIRA 12:9)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. Montazhnyy otdel Gosudarstvennogo proyektnogo instituta Santekhproyekt (for Karasev, Lisitsyn, Mazo). (Plumbing--Standards)

ADAMOV, O.V., inzh., red.; GELIN, M.M., inzh., red.; MUNITS, A.P., red.izd-va; LAGUTINA, I.M., tekhn.red.

[Standard instructions for erecting steam heating plants] Tipovye tekhnologicheskie karty na proizvodstvo rabot po montazhu otopitel'nykh kotel'nykh. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1958. 50 p. (MIRA 12:3)

1. Moscow. Gosudarstvennyy proyektnyy institut Santekhproyekt. (Boilers)

ADAMOV, O.V., inzh., red.; GELIN, M.M., inzh., red.; MUNITS, A.P., red. izd-va,; LAGUTINA, I.M., tekhn. red.

[Standard technological diagrams for installing central heating systems] Tipovye tekhnologicheskie karty na proizvodstvo rabot po montazhu sistem tsentral'nogo otopleniia. Moskva, Gos.izd-vo lit-ry po stroit, arkhit. i stroit. materialam, 1958. 71 p. (MIRA 11:12)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva.
(Heating)

GENIN, M.Ya.,inzh.; KHOTKEVICH, S.G., inzh.; ADAMOV, O.V., inzh., retsenzent; VINOGRADOV, A.Ya., inzh., retsenzent; BELOUSOV, V.V., inzh., nauchnyy red.; NINEMYAGI, D.K., red.izd-va; MEDVEDEV, L.Ya., tekhn.red.; STEPANOVA, E.S., tekhn.red.

[Machine tools and mechanisms used in sanitary engineering] Stanki i mekhanizmy dlia proizvodstva sanitarno-tekhnicheskikh rabot. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1959. 179 p. (MIRA 13:6)
(Sanitary engineering--Equipment and supplies)

ADAMOV, O.V.; FINKEL'SHTEYN, S.M.

Work practices in pipe bending. Vod.i san.tekh. no.9:31-32 S '59. (MIRA 12:12)
(Pipe bending)

ADAMOV, O.V.; IVANOV, K.N.

Length of short threads on pipes of sanitary engineering systems. Vod. i san. tekh. no.11:15-17 N '59. (MIRA 13:3)
(Pipe fitting)

Adamov, P.G.

MIRONOV, Konstantin Andreyevich; SHIPETIN, Lev Iosifovich; L'VOV, M.A., kand.tekhn.nauk, retsenzent; ADAMOV, P.G., inzh., red.; POLYAKOV, G.F., red.izd-va; TIKHONOV, A.Ya., tekhn.red.

[Measuring instruments for use in connection with thermal processes; reference manual] Teplotekhnicheskie izmeritel'nye pribory; spravochnye materialy. Izd.2., perer. i dop. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1958. 896 p. (MIRA 11:12)
(Physical instruments)

S/112/59/000/012/053/097
A052/A001

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, No. 12, p. 152, # 24962

AUTHOR: Adamov, P.G.

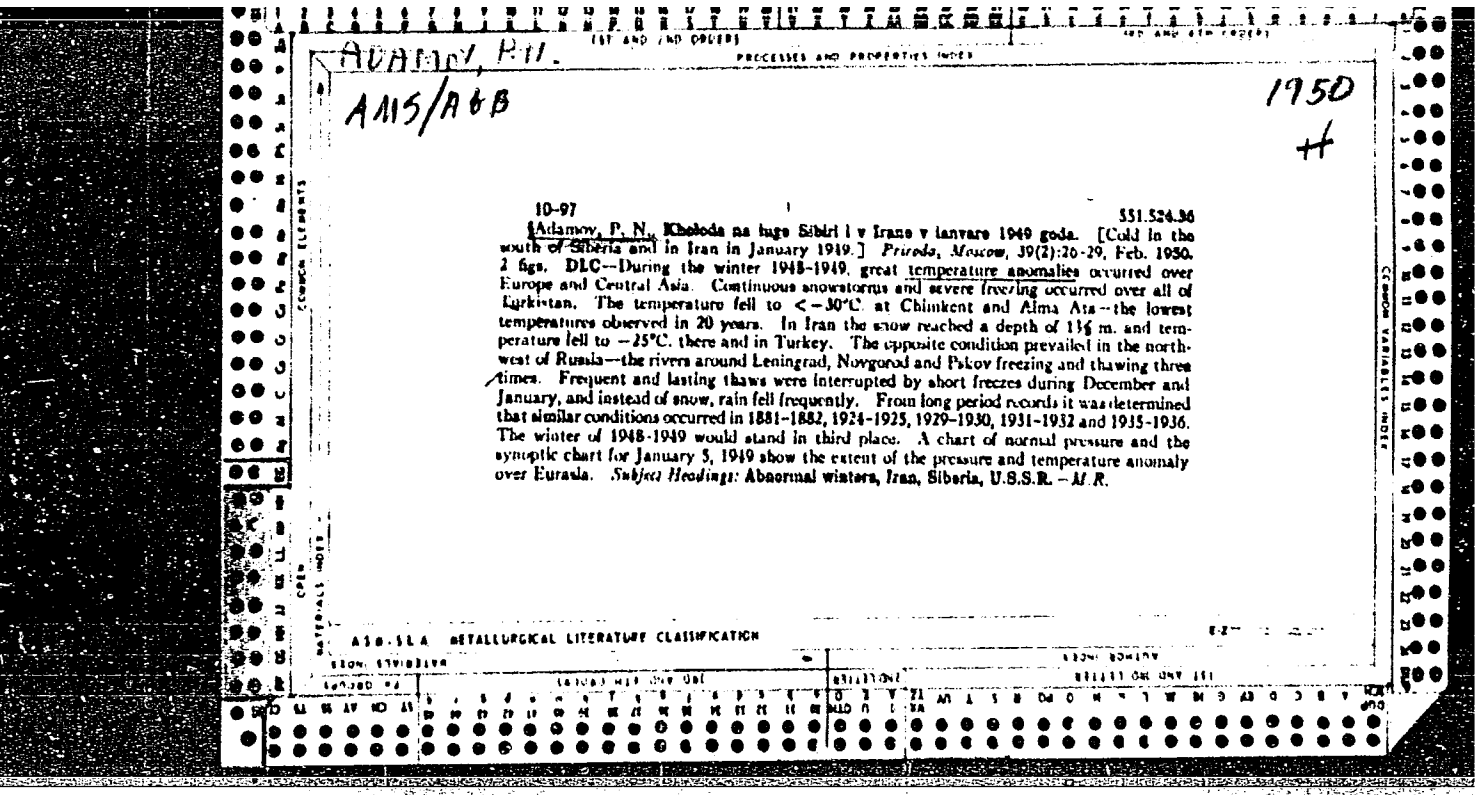
TITLE: Problems of Developing the Production of Instruments and Automatic Devices and of Designing New Types of Them

PERIODICAL: Opyt raboty prom-sti Sovnarkhoza (Moskov. ekon. adm. r-n), 1958, No. 4, pp. 36-43

TEXT: The prospective plan of development of the Moscow instrument industry for 1959-1965 is discussed. There are 11 illustrations.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1



ADAMOV, P.N.

A115/A6B

1950

+

10-97 551.524.36

[Adamov, P. N. Kholoda na tugo Sibiri i v Irane v ianvare 1949 goda. [Cold in the south of Siberia and in Iran in January 1949.] *Priroda, Moscow*, 39(2):26-29, Feb. 1950. 2 figs. DLC--During the winter 1948-1949, great temperature anomalies occurred over Europe and Central Asia. Continuous snowstorms and severe freezing occurred over all of Turkistan. The temperature fell to $< -30°C$ at Chimkent and Alma Ata--the lowest temperatures observed in 20 years. In Iran the snow reached a depth of 1½ m. and temperature fell to $-25°C$. there and in Turkey. The opposite condition prevailed in the northwest of Russia--the rivers around Leningrad, Novgorod and Pskov freezing and thawing three times. Frequent and lasting thaws were interrupted by short freezes during December and January, and instead of snow, rain fell frequently. From long period records it was determined that similar conditions occurred in 1881-1882, 1924-1925, 1929-1930, 1931-1932 and 1935-1936. The winter of 1948-1949 would stand in third place. A chart of normal pressure and the synoptic chart for January 5, 1949 show the extent of the pressure and temperature anomaly over Eurasia. *Subject Headings:* Abnormal winters, Iran, Siberia, U.S.S.R. -*M.R.*

ADAMOV, Pavel Nikolayevich; YASNOGORODSKAYA, M.M., redator; BRAYNINA, M.I., tekhnicheskiy redaktor

[Weather service] Sluzhba pogody. Leningrad, Gidrometeorologicheskoe izd-vo, 1954. 39 p. (MLRA 8:4)
(Weather forecasting)

3(7) PHASE I BOOK EXPLOITATION SOV/3038

Adamov, Pavel Nikolayevich

Sluzhba pogody (Weather Service) 2d ed. Leningrad, Gidrometeoizdat, 1959. 43 p. 10,000 copies printed.

Ed.: V. S. Protopopov; Tech. Ed.: N. V. Volkov.

PURPOSE: This booklet is intended for the general reader interested in meteorology.

COVERAGE: The booklet discusses in popular terms the basic principles of weather and climate, traces the history of the development of the meteorological service in the USSR, and describes its present organization and the work of its various agencies, the tools and methods of meteorological investigation and research (weather bureaus, meteorological stations, synoptic maps, etc.), and weather forecasting techniques. The book cites concrete examples of the services rendered by weather bureaus to the various branches of the national economy, such as agriculture, aviation, sea, river, and railroad transportation, etc. Prospects for further development in meteorology are also discussed. No personalities are mentioned. No references are given.

TABLE OF CONTENTS:

Card 1/2

ADAMOV, Pavel Nikolayevich; VLASOVA, Yu.V., red.; FLAUM, M.Ya., tekhn. red.

[Local weather signs] Mestnye priznaki pogody. Leningrad, Gidrometeor. izd-vo, 1961. 33 p. (MIRA 14:9)
(Weather forecasting)

ADAMOV, V.; GRAUDYN', L.[Graudina, L.]; PETRZHAK, K.; SOROKINA, A.

Gamma rays from inelastic scattering of 2.95 Mev. neutrons in La^{139}.
Vestis Latv ak no.5:61-64 '61.

Adamov, V.G.

USSR/Chemistry - Coal

Card 1/1 Publ. 22 - 45/63

Authors : Ettinger, I. L.; Lamba, E. G.; and Adamov, V. G.

Title : The role of gas as a reducer of coal solidity

Periodical : Dok. AN SSSR 99/6, 1057-1060, Dec 21, 1954

Abstract : Experiments were conducted to determine the causes for coal softening (loss in solidity) under the effect of gas pressures and to explain the connection between solidity reduction of coal and their geological disturbance. Results showed that the softening of coal is connected with their gas absorption and that the change in ca6l solidity in the mass during cut-off ventilation is connected with the increase in partial gas pressure and reduction in intensity of gas desorption from the coal. Eight USSR references (1936-1954). Tables; drawing.

Institution : Academy of Sciences USSR, Mining Institute

Presented by : Academician A. A. Skochinskiy, July 7, 1954

[illegible] 120-2-40/67

AUTHOR ETTINGER I.L., LAMBA Ye.G., ADAMOV V.G.,

TITLE Gas Medium in Coal-Breaking Destruction Processes. (Rol' gazovoy sredy v protsessakh rezrusheniya uglya -Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 2, pp 383-386 (U.S.S.R.)

Received 6/1957 Reviewed 7/1957

ABSTRACT The Problem of the influence of the gas medium on the solidity properties of coal, most seams of which are in this medium, is interesting from the practical point of view. The methodology applied was described in a former paper. Here the interrelation between the effect of action of the gas medium or of different gases respectively on the solidity of fossil coal and its natural derangement of structure as well as its degree of metamorphism is investigated. The solidity is caused by injuries of the most different kinds. For a meterial as highly porous as coal, the surface effects are especially important, all the more as the surrounding gases are well adsorbed on its surface. As in the case of liquids, the adsorbed molecules bidimensionally penetrate along fine, not entirely developed cracks. In consequence of the decreasing surface tension these molecules favour the formation of new micro-cracks and prevent their closing. In the course of deformation of the coal new cleavage planes develop, which run through the coal as sphenoid cracks. These newly formed surfaces are incrusted with adsorption layers. Among other things the natural micro-cracks lower the solidity of fossil coal in the seam with a gas adsorption occurring at

Card 1/4

Gas Medium in Coal-Breaking Destruction Processes. [redacted] 20-2-40/67

the same time.The authors investigated the solidity of more than 1oo samples and of 5 different types of derangement of the structure in the air, CO_2 and OH_4 under pressure of 4o atm.over pressure.The physical adsorption for CO_2 and CH_4 is characterizing. The quantity of dust developing on the occasion of crushing the coal was measured in all of the three gases.From ill.1 it is evident that solid sorts of coal have less micro-craks and therefore their solidity is not injured by gases. Weak and easily crushable coals, on the other hand, are weakened even more by the action of CH_4 and CO_2. Ill.2 shows(in semilogarithmic coordinates) the average distance between micro-cracks and the dust development in CO_2. On the occasion of a mechanical influence on coal in gas mediy also the micro-cracks, with the exception of influences on large surfaces, have an effect.If such preliminary derangement is lacking, the gas alone is not able to produce new cleavage planes between coal and gas and thus to promote the destruction of the coal along these planes. Methane has a similar, though weaker effect than CO_2.In the seam the coal is saturated with gas. Here the gas has no weakening effect but prevents the hardening of the coal.A very fine methane cover(nearly 1oo% methane) is blown away on the occasion of active ventilation. Although the methane supply from deeper layers intensifies, it stays behind the escaping of gas. The gas pressure in the exterior coal layers decreases, the decomposing gas-effect int the micro-craks dimini-

Card 2/4

Gas Medium in Coal-Breaking Destruction Processes. [redacted]
20-2-40/67

shes, and the miner subjectively notices that the coal has become more solid.When swithching off the ventilation this phenomenon stops. Experiments with universal compression of coal (1000-4000 kg/cm^2) had not shown any differences in single gas media.Obviously the gas layers adsorbed in the micro-cracks prevent the closing of these cracks.Within the frame of the same petrographic type coals of an average metamorphism (K and PS) are the least solid. Younger and riper coals have a better resistance against mechanical influence.In order to watch the interrelation between the effect of the actioh of the gas medium on the properties of solidity of the coal and the degree of metamorphism, coals of the same degree of decomposition, however, of different yield of volatile substances were investigated. The maximum yield of dust developed with coals of average degrees of metamorphism. The condition of natural decomposition is the main factor for the weakining gas effect on coal. The degree of metamorphism in connection with an equal degree of decomposition has the same effect on the solidity in the system coal-air as in the system coal-easily adsorbable gas. The size of the molecules is here less important than the sorption capacity of the respective gas. Despite the size of the molecules the effect diminishes according to the series CO_2-CH_4-H_2, which is confirmed by the graph obtained showing the sorption influence of the gases on the solidity of the coal.

Card 3/4

Gas Medium in Coal-Breaking Destruction Processes. 20-2-40/6?

(With 4 illustrations, 5 citations from publications).

ASSOCIATION
PRESENTED BY SKOCHINSKIY A.A., Academy-Member
SUBMITTED 5.6.1956
AVAILABLE Library of Congress
Card 4/4

LAMBA, Ye.G. (Moskva); ETTINGER, I.L. (Moskva); ADAMOV, V.G. (Moskva)

Determining the methane content of native coals at pressures up to 50 at. Izv. AN SSSR Met. i gor. delo no.2:188-191 Mr-Ap'64 (MIRA 17:8)

1. Institut gornogo dela imeni A.A. Skochinskogo.

ETTINGER, I.L.; CHAPLINSKIY, A.; LAMBA, Ye.G.; ADAMOV, V.G.

Comparative sorption capacity of fossil coals as compared to carbon dioxide gas ans methane under pressures ranging up to 40 atm. Dokl. AN SSSR 161 no.1:214-217 Mr '65. (MIRA 18:3)

1. Submitted July 4, 1964.

S/089/62/013/005/006/012
B102/B104

24.6600

AUTHORS: Kovalenko, S. S., Petrzhak, K. A., Adamov, V. M.

TITLE: The dependence of the total kinetic energy of fission fragments on the energy of the bombarding neutrons

PERIODICAL: Atomnaya energiya, v. 13, no. 5, 1962, 474-475

TEXT: K. A. Petrzhak has found (Zh. eksperim. i teor. fiz., 42, no. 6, 1475, 1962)* that in symmetric U^{238} fisson by 14.5-Mev neutrons the total kinetic energy of the fragments is by 15±2 Mev lower than when a fragment mass ratio of 1.3 is assumed. If this result is compared with results obtained by other authors for thermal fission of U^{235} and Pu^{239} it can be concluded that the fragment kinetic energy E_k grows with E_n in the region of symmetric fission. In order to verify this conclusion E_k was measured with U^{235} fission induced by thermal and 14.5-Mev neutrons. The results (Figure) agree well with those of other authors except in the symmetry region, where the total fragment energy was found to be smaller by 5-7 Mev than that found by Milton and Fraser (Phys. Rev. Lett.,

Card 1/2 * S/056/62/042/006/009/047

38857

S/056/62/042/006/009/047
B104/B102

24.6600 (2806)

AUTHORS: Adamov, V. M., Kovalenko, S. S., Petrzhak, K. A.

TITLE: The kinetic energy of fragments from the fission of U^{238} by 14.5-Mev neutrons

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 6, 1962, 1475 - 1477

TEXT: The total kinetic energy of fragment pairs from the fission of U^{238} by 14.5 Mev neutrons was investigated with the help of a double ionization chamber for mass ratios 1, 1.1, 1.2, 1.3, 1.43, and 1.56 of the pairs. The impulse coming from the fragment pairs was amplified and fed to the vertical and horizontal plates of a cathode ray oscillograph. This made it possible to determine the energy ratios and thence also the mass ratios ($E_1/E_2 = M_2/M_1$). $3 \cdot 10^6$ fission events were recorded. The most probable total kinetic energy as a function of the mass of the heavy fragment was obtained from the maxima of the spectra of the total kinetic energy for different mass ratios. These curves are very similar to those

Card 1/2

The kinetic energy of fragments...

from the fission of U^{233}, U^{235}, and Pu^{239} by thermal neutrons. The difference between the maximum of this kinetic energy and the kinetic energy on symmetric fission is 15 ± 2 Mev, which is less than the corresponding difference for the fission of U^{233}, U^{235}, and Pu^{239} by thermal neutrons and the spontaneous fission of Cf^{252}. Thus the total kinetic energy of the fission fragments appears to increase with increasing energy of the incident particles. There are 4 figures.

SUBMITTED: January 26, 1962

Card 2/2

ACC NR: AP7006225 SOURCE CODE: UR/0367/67/005/001/0042/0048

AUTHOR: Adamov, V. M.; Drapchinskiy, L. V.; Kovalenko, S. S.; Petrzhak, K. A.; Tyutyugin, I. I.

ORG: none

TITLE: Neutrons and gamma-quanta at spontaneous ternary fission of Cm^{244}

SOURCE: Yadernaya fizika, v. 5, no. 1, 1967, 42-48

TOPIC TAGS: nuclear fission, fission product, prompt neutron, gamma quantum, ALPHA PARTICLE, CURIUM, ISOTOPE

ABSTRACT: An investigation was made of the dependence of the average number of prompt neutrons ($\bar{\nu}_{tr}$) and gamma-quanta ($\bar{n}_{tr}$) on the energy of alpha-particles and the interrelationship of energy distribution of alpha-particles and gamma-quanta at a spontaneous ternary fission of Cm^{244}. The fission fragments were recorded by a small ionization chamber; the alpha particles with a CsJ(Tl) crystal; the neutrons with a stilbene crystal; and the gamma quanta with NaJ(Tl) crystal. An electronic device recorded simultaneously the number of binary coincidences of neutrons (gamma-quanta) and fragments ($N_{n(\gamma)\text{-frag}}$); the number of binary coincidences of alpha-particles and fragments ($N_{\alpha\text{-frag}}$); and the number of ternary coincidences of alpha-particles, neutrons (gamma-quanta), and fragment ($N_{\alpha\text{-n}(\gamma)\text{-frag}}$). Preliminary measurements of the dependence of $\bar{\nu}_{tr}$ and $\bar{n}_{tr}$ on the energy of alpha particles were carried out with the same target. The determined ratios for average numbers of prompt neutrons and gamma-quanta for ternary and binary spontaneous fission of Cm^{244} were

ACC NR: AP7006225

$\bar{\nu}_{tr}/\bar{\nu} = 0.58 \pm 0.07$ and $\bar{n}_{tr}/\bar{n} = 0.88 \pm 0.09$, respectively. An investigation of the dependence of $\bar{\nu}_{tr}$ and $\bar{n}_{tr}$ on the alpha-particle energy showed that when the energy of the alpha-particle changes from 15 to 25 Mev, $\bar{\nu}_{tr}$ decreases from 1.95 to 1.16, while $\bar{n}_{tr}$ remains constant. This indicates that the ternary fission mechanism is two-staged. Correlated energy distributions of ternary fission of gamma-quanta and alpha-particles were obtained. An analysis showed that the gamma-quanta energy distributions do not depend significantly on the alpha-particle energy. The binary and ternary gamma-quanta spectra were also identical. It follows that no significant gamma-radiation directly connected with the alpha-particle emission is emitted in the ternary fission. The authors thank A. S. Krivokhatskiy, B. M. Aleksandrov, and N. A. Malyshev for the Cm^{244} targets. Orig. art. has: 6 figures. [WA-95] [JA]

SUB CODE: 20/ SUBM DATE: none/

Card 2/2

KOVALENKO, S.S.; PETRZHAK, K.A.; ADAMOV, V.M.

Total kinetic energy of U^{233} and Th^{232} fission fragments. Atom. energ. 15 no.4:320-321 O '63. (MIRA 16:10)

[illegible], A. N.; PETROV, G. A.

3

"Some Special Features of the Recording of Alpha Particles and Fission Fragments by Surface-Barrier Silicon Counters."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

Radiyevyy Institut (Radium Inst)

ADAMOV, V. N.

ADAMOV, V. N.: "The deformation calculation and the stability of flat frames". Novocherkassk, 1955. Min Higher Education USSR. Novocherkassk Polytechnic Inst imeni S. Ordzhonikidze, Chair of Theoretical Mechanics. (Dissertations for the Degree of Candidate of Technical Sciences)

SO: Knizhnaya letopis', No. 52, 24 December, 1955. Moscow.

14(8) SOV/132-59-2-12/16

AUTHOR: Kupriyanenko, N.F., and Adamov, V.N.

TITLE: The Work of the Labor Protection Commission in the Trud Geological Prospecting Group (O rabote komissii po okhrane truda v Trudovskoy geologorazvedochnoy partii)

PERIODICAL: Razvedka i okhrana nedr, 1959, Nr 2, pp 52-53 (USSR)

ABSTRACT: The article describes the everyday work of a labor protection commission in the Trud geological prospecting group. This commission was created to cut down the number of accidents and illnesses among the workers. Different measures are described. Special inspectors regularly check the conditions under which the members of the group are working. Special courses are organized for workers to teach them how to use new drilling machines, many accidents being the

Card 1/2

The Work of the Labor Protection Commission in the Trudy Geological Prospecting Group

result of insufficient training.

ASSOCIATION: TsK profsoyuza geologorazvedochnykh rabot (Central Committee of the Trade Union of Geological Prospecting Workers). Trudovskaya geologorazvedochnaya partiya (The Trud Geological Prospecting Group)

ADAMOV, V.S.; KANTARDZHYAN, L.T.

Luminescence of ionic forms of uranin in liquid and solid solutions. Opt. i spektr. 11 no.3:419-422 S '61. (MIRA 14:9)
(Uranin) (Luminescent substances)

39687
S/051/62/013/001/008/019
E039/E420

24,3500

AUTHORS: Adamov, V.S., Kantardzhyan, L.T.

TITLE: The effect of reabsorption on the quenching of phosphorescence of molecules in an infinite plane-parallel layer of finite thickness

PERIODICAL: Optika i spektroskopiya, v.13, no.1, 1962, 100-106

TEXT: The kinetic equations for phosphorescent molecules are formulated, taking reabsorption into account, for short wavelength luminescent band spectra in a finite volume. It is assumed that the luminescent molecules are distributed uniformly in a solid medium. The energy conditions for such molecules can be described by a three stage electron level scheme as used by A. Jablonski. By making use of the method of successive approximations, integro-differential equations are obtained showing the character of the change in the decay law for the α and β phosphorescence bands with increase in multiple reabsorption. The final expressions obtained for the energy emitted from the investigated layer per unit time for unit area

M $\longrightarrow$ N transitions; ν - frequency of the luminescence; x - absorption coefficient. These equations show that with reabsorption in the short wavelength regions of the spectrum the laws of α- and β-decays appear non-exponential and depend on the geometry of the luminescent volume. There are 2 figures.

SUBMITTED: May 22, 1961

Card 3/3

L 9869-63 EWT(m)/BDS--RM/MAY
ACCESSION NR: AP3001357 S/0048/63/027/006/0796/0798 56 54

AUTHOR: Avetisyan, M. A.; Adamov, V. S.; Kantardzhyan, L. T.; Chirkinyan, S. S.

TITLE: Concerning protomeric forms of fluorescein and urain [Report of the Eleventh Conference on Luminescence held in Minsk from 10 to 15 September 1962]

SOURCE: AN SSSR. Izv. Seriya fizicheskaya, v. 27, no. 6, 1963, 796-798

TOPIC TAGS: fluorescein, sodium fluorescein urain, protometric transformations, fluorescein absorption, fluorescein luminescence

ABSTRACT: The protometric forms of fluorescein and its di-sodium salt uranin have been studied by many authors. It has been established from the characteristics of the absorption and luminescence spectra that in addition to the neutral molecule, there exist three ionic forms, produced as a result of protolytic reactions. At the same time the neutral molecule can be represented in two structurally different forms: lactone and quinoid. All these forms exhibit characteristic absorption and luminescence bands (the neutral molecule does not luminesce), but interpretation of the spectral data is rendered

Card 1/2

difficult by the fact that the pH ranges of existence of the different forms over-lap. New experimental data have been obtained on the spectra of fluorescein in dioxane solutions and uranin in potassium hydroxide solutions (1, 5, 10 and 15N). Increase of the alkali concentration above 1N results in decrease of the luminescence of the doubly charged uranin ion. With the passage of time strong KOH solutions turn blue in a few hours and then bleach after some days with complete loss of luminescence. The new results indicate that the list of equilibrium protolytic forms of fluorescein and uranin must be supplemented by two new ionic forms existing in strong alkaline solutions. The equilibrium constant for the two neutral forms of uranin and fluorescein is strongly dependent on the initial concentration of the dye. "The authors thank L. A. Gasparyan and R. G. Nazaryan for assistance in the work." Orig. art. has: 2 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 01Jul63 ENCL: 00

SUB CODE: PH,CH NR REF SOV: 004 OTHER: 005

ja/nh
Card 2/2

L 9904-63
ACCESSION NR: AP3000417 S/0076/63/037/005/1069/1074

AUTHOR: Avetisyan, M. A.; Adamov, V. S.; Kantardzhyan, L. T.; Chirkinyan, S. S.

TITLE: Photochemical behavior of uranin in liquid and solid solutions

SOURCE: AN SSSR. Zhurnal fizicheskoy khimii, v. 37, no. 5, 1963, 1069-1074

TOPIC TAGS: uranin, saccharine, boric organophosphors, atmospheric oxygen, photochemical processes, boric phosphor

ABSTRACT: Authors attempted to explain the effect of a preliminary light excitation on the luminescent properties of saccharine and boric organophosphors containing uranin ions in various relative concentrations as an activator. The luminescence and absorption spectrums of hard sugar candies and boric beads, which were prepared from aqueous solutions of uranin at various pH and subjected to a preliminary light excitation for various lengths of time in the presence of atmospheric oxygen, were studied. Authors conclude that photochemical processes in liquid solutions as well as in boric phosphor lead to the formation of non-luminescent products of the photoreaction of uranim. In glycerine and

Card 1/2

L 9904-63
ACCESSION NR: AP3000417

saccharine phosphor with a pH of about 4, the photoproduct causing the appearance of a short-wave luminescence band is identified with the uranin cation forming from the neutral molecule as the result of photochemical process. In saccharine phosphor with a pH of about 3.35, a substantially different progress of the photochemical process was established, which led to a sharp increase in the luminescence intensity. "The authors wish to thank V. A. Arutyunyan and D. G. Petrosyan for their help in this study." Orig. art. has: 7 figures.

ASSOCIATION: iInstitut radiofiziki i elektroniki, AN Armyanskoy SSR (Institute of radiophysics and electronics, AN Armenian SSR)

SUBMITTED: 25Apr62 DATE ACQ: 19Jun63 ENCL: 00

SUB CODE: 00 NR REF SOV: 004 OTHER: 003

Card 2/2

ADAMOV, V.S.; MANTARDZHYAN, I.G.; [illegible], S.A., [illegible], V.V.

Effect of reabsorption on the damping of the phosphorescence of boric phosphors stimulated by light pulses. Dokl. AN Arm. SSR 41 no.2:88-92 '65. (MIRA 18:11)

1. Institut radiofiziki i elektroniki AN ArmSSR. Submitted March 10, 1965.

MOSHKIN, A.M., dotsent; MYSTROV, S.G., zhurnalist; ADAMOV, V.V., dotsent, kand. istor. nauk, retsenzent; KOLOSNITSYN, V., red.; PAL'MINA, N., tekhn. red.

[Alapayevsk] Alapaevsk. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1961. 125 p. (MIRA 15:4)

1. Sverdlovskiy pedagogicheskiy institut (for Moshkin). 2. Ural'skiy gosudarstvennyy universitet (for Adamov).
(Alapayevsk--Economic conditions) (Alpayevsk--History)

GORLANOV, M.G., prepodavat.; POKAZANYEV, Aleksandr; ADAMOV, V.V., kand. ist. nauk, retsenzent; KULAGINA, G.A., kand. ist.nauk, retsenzent; BOROZDIN, Ye.A., red.; ZAVAROV, S.I., red.; POPOV, N.Ye., red.; OGOZHKIN, V.N., red.; SILENSKIKH, T.N., red.; TARIKO, A.N., red.; KOLOSNITSYN, V., redaktor; PARSIMOVA, E., tekhn. red.

[Revda stories; from the history of the Revda Hardware Manufacturing and Metallurgical Plant]Revdinskie vyli; iz istorii Revdinskogo metiznometallurgicheskogo zavoda. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1960. 154 p. (MIRA 15:8)

1. Sekretar' Revdinskogo gorodskogo komiteta Kommunisticheskoy partii Sovetskogo Soyuza (for Silenskikh).
(Revda--Metallurgical plants)

ADAMOV, V.Ye.; BAKLANOV, G.I., prof.; IVANOV, A.I.; SAMOYLOVA,A.A.; USTINOV, A.N.; SHIFMAN, A.G.; SHCHEDRIN, N.I.; CHIZHEVSKAYA, K.M., red.

[Collecting of problems on industrial statistics] Sbornik zadach po statistike promyshlennosti. Moskva, Izd-vo "Statistika," 1964. 247 p. (MIRA 17:5)

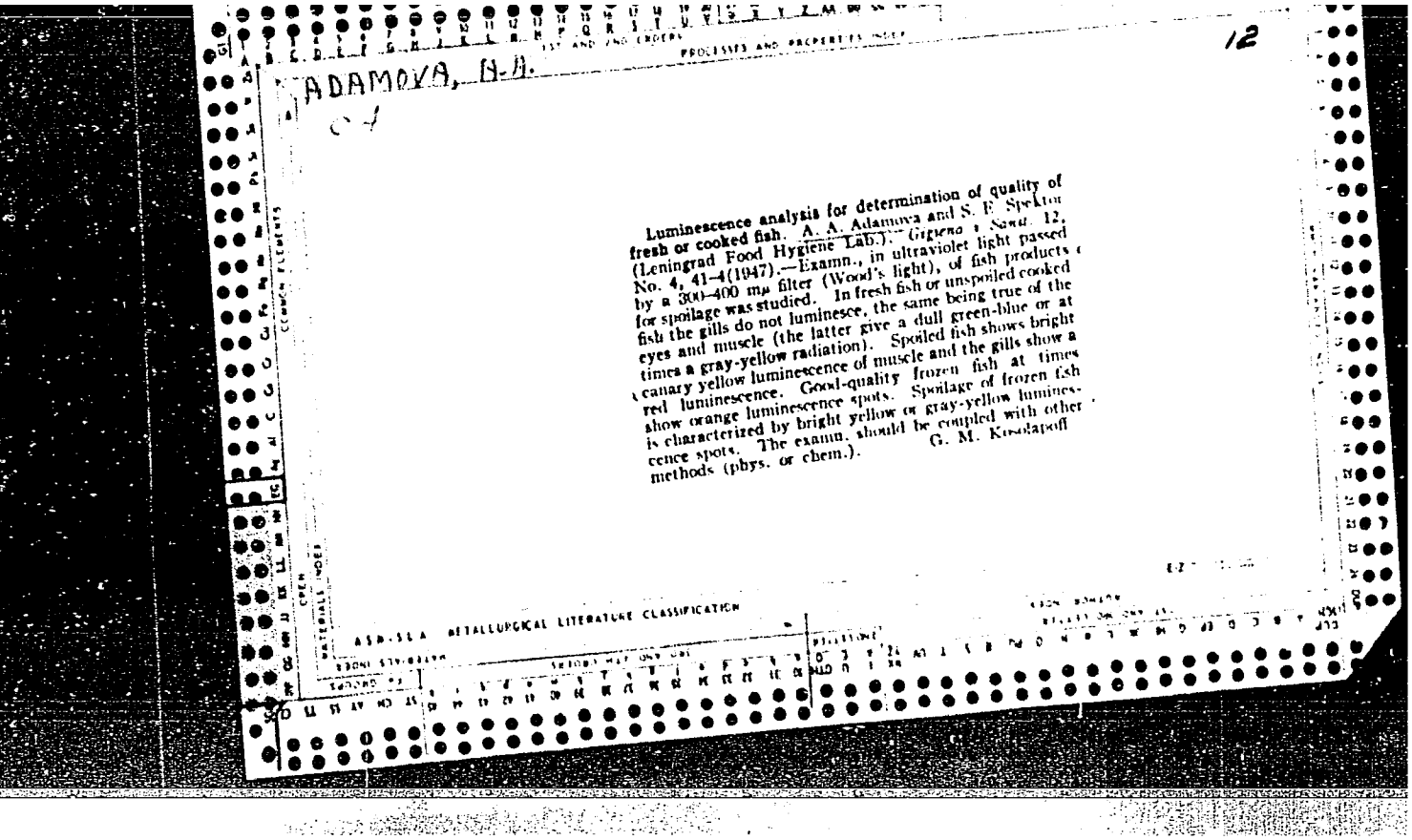
ADAMOV, Vladimir Yevgen'yevich; BAKLANOV, G.I., red.; PRIVEZENTSEVA, A.G., red.

[Statistical study of the regular flow of industrial production] Statisticheskoe izuchenie ritmichnosti promyshlennogo proizvodstva. Moskva, Statistika, 1965. 186 p. (MIRA 18:4)

ADAMOVA, A.A.; NEVSTRUYEVA, M.A.; UGLOV, F.G.

Evaluation of staircases in dwellings by the determination of gas metabolism. Gig.i san. no.7:45 Jl '53. (MLRA 6:7)

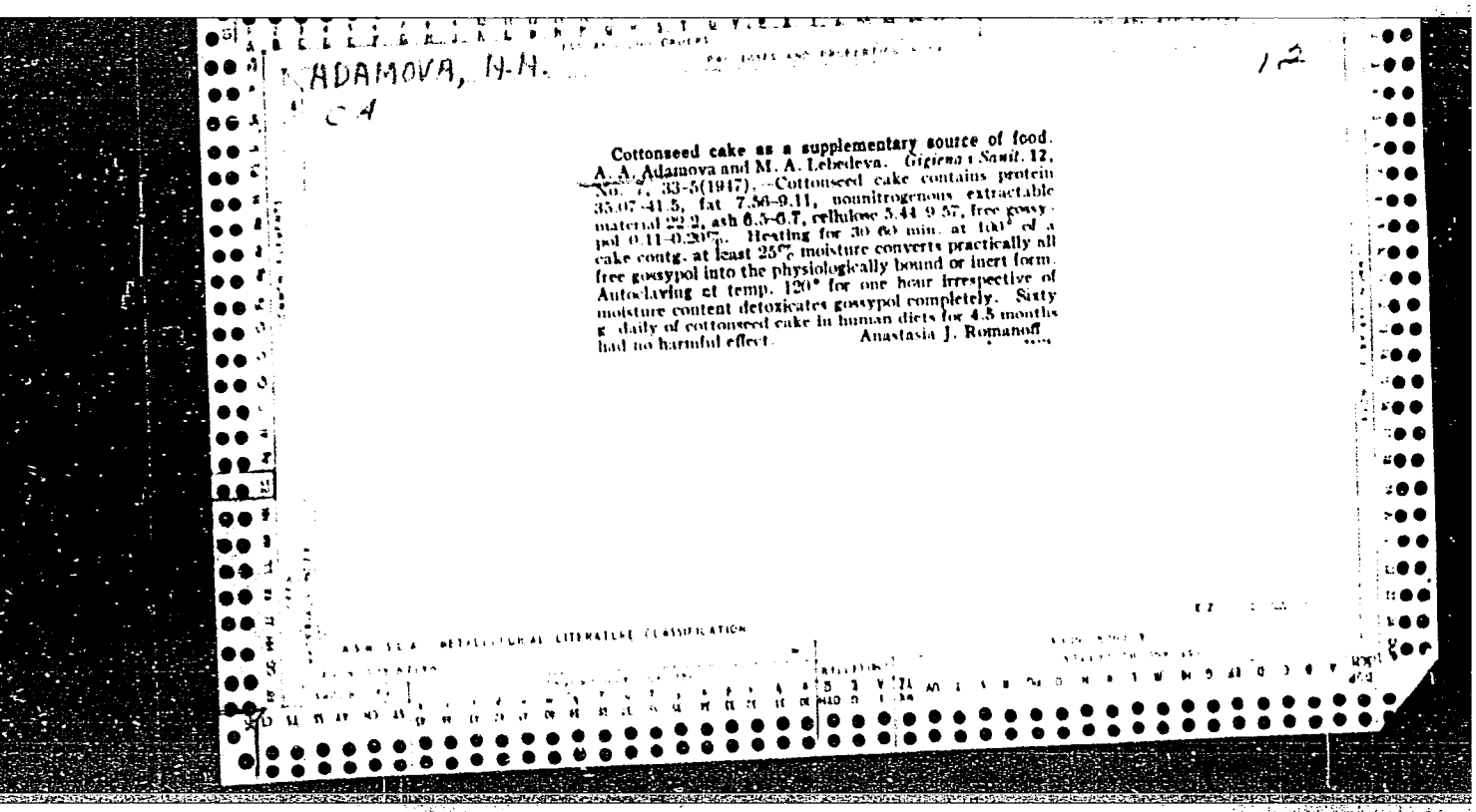
1. Kafedra gigiyeny I Leningradskogo meditsinskogo instituta imeni akademika I.P.Pavlova. (Staircases)



ADAMOVA, A.A.

12

Luminescence analysis for determination of quality of fresh or cooked fish. A. A. Adamova and S. F. Spektor (Leningrad Food Hygiene Lab.). *Gigiena i Sanit.* 12, No. 4, 41–4(1947).—Examn., in ultraviolet light passed by a 300–400 mμ filter (Wood's light), of fish products for spoilage was studied. In fresh fish or unspoiled cooked fish the gills do not luminesce, the same being true of the eyes and muscle (the latter give a dull green-blue or at times a gray-yellow radiation). Spoiled fish shows bright canary yellow luminescence of muscle and the gills show a red luminescence. Good-quality frozen fish at times show orange luminescence spots. Spoilage of frozen fish is characterized by bright yellow or gray-yellow luminescence spots. The examn. should be coupled with other methods (phys. or chem.). G. M. Kosolapoff



ADAMOVA, N.N.

C A

12

Cottonseed cake as a supplementary source of food. A. A. Adamova and M. A. Lebedeva. *Gigiena i Sanit.* 12, No. [illegible] 33-5(1947).—Cottonseed cake contains protein 35.07-41.5, fat 7.56-9.11, nonnitrogenous extractable material 22.2, ash 6.5-6.7, cellulose 5.44-9.57, free gossypol 0.11-0.20%. Heating for 30-60 min. at 100° of a cake contg. at least 25% moisture converts practically all free gossypol into the physiologically bound or inert form. Autoclaving at temp. 120° for one hour irrespective of moisture content detoxicates gossypol completely. Sixty g. daily of cottonseed cake in human diets for 4.5 months had no harmful effect. Anastasia J. Romanoff

CA

12

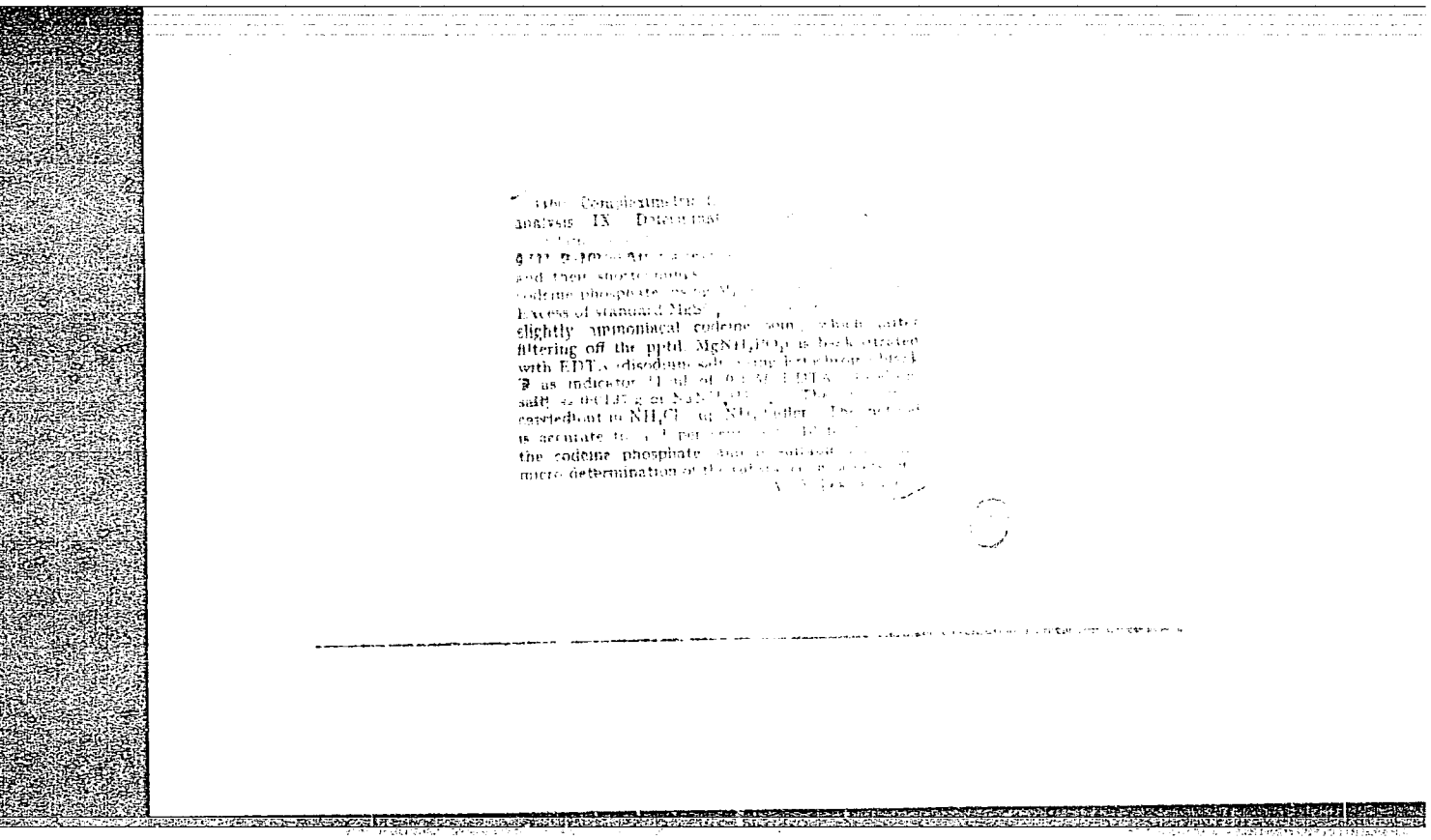
Natural levels of some microelements in fish of Barents Sea. A. A. Adamova, A. G. Besin, M. I. Voskoboinikova, and O. I. Tverdyshova. *Gigiena i Sanit.* 1949, No. 11, 34-8.--The concns. of Pb, Cu, Zn, Sn, As, and I in a variety of the common fish are given in tabular form with av., min., and max. values found. No regular seasonal variation could be found. G. M. Kosolapoff

Leningrad Sci Res. Sanitation & Hygiene Inst.

Investigation of the alleged collusion with officials

[redacted]

[redacted]



CZECHOSLOVAKIA

WOLF, A., and ADAMOVA, I., of the Chair of the Hygiene of Children and Adolescent and Nutrition (Katedra hygieny deti a dorostu a vyzivy), Faculty of Medical Hygiene (Lekarska fakulta hygienicka), Charles University, Prague, Docent F. JANDA, MD, director.

"Contribution to the Evaluation of the So-Called Alimentary Anemia"

Prague, Casopis Lekaru Ceskych, Vol CII, No 17, 26 April 63, pp 444-448.

Abstract [Authors' English summary]: In a model animal experiment the authors studied the relation of changes in the red blood count to various compositions of the nutrition and oxygen saturation. They found that in short-term fasting the values of the red blood count in grown-up individuals remain in physiological ranges; in long-term and calorically insufficient or abundant nutrition there occur conspicuous changes due however to simultaneous lowering of the biological value of nutrition. They conclude that the term "simple alimentary anemia" based only on calorie restriction is incorrect. Denutrition damps the irritating effect of a lowered oxygen tension on bone marrow. The values of

1/2

Adamova, L.

LITVISHKO, Vasiliy Nikitich; ADAMOVA, L., redaktor; UL'YANOVA, M., tekhnicheskiy redaktor.

[Cast iron, steel and rolled iron] O chugune, stali i prokate.[Sverdlovsk] Sverdlovskoe knizhnoe izd-vo, 1955. 89 p. [Microfilm]
(MLRA 10:5)

(Iron) (Steel)

GETLING, Yuriy Vladimirovich; ADAMOVA, L., red.; CHEMKO, L., tekhn. red.

[Sverdlovsk Province between the 21st and 22d Congresses of the CPSU]Mezhdu dvumia s"ezdami; Sverdlovskaia oblast' mezhdu XXI i XXII s"ezdami KPSS. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1961. 103 p. (MIRA 15:8)
(Sverdlovsk Province--Economic conditions)

GORODETSKIY, David Yevseyevich; ZHURIN, Grigoriy Mikhaylovich; ZUBAREV, Leonid Aleksandrovich; ADAMOVA, L., red.; CHEMKO, L., tekhn. red.

[Put the reserves of the fuel industry to use]Rezervy toplivnoi promyshlennosti v deistvii. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1961. 110 p. (MIRA 15:8)
(Coal mines and mining) (Peat)

ZHELODAROVA, S.M.; ARKHIPOVA, M.N.; LYAPOVA, I.A.

Separation of vinyl esters by paper chromatography. Qualitative determination of vinyl acetate and vinyl alkyl esters of dicarboxylic acids. Zhur. anal. khim. 18 no.2:283-287 F '63. (MIRA 17:10)

1. State Scientific-Research and Design Institute of Nitrogen Industry and Products of Organic Synthesis, Lisichansk Branch, Severodonetsk.

ADAMOVA, M.Yo.

Treatment of brucellosis. Zhur.mikrobiol.epid. i immun.28 no.12:114-118 D '57. (MIRA 11:4)

1. Iz kafedry infektsionnykh bolezney TSentral'nogo instituta usovershenstvovaniya vrachey.
(BRUCELLOSIS, therapy,
(Rus)

ADAMOVA, M. E., Cand Med Sci -- (diss) "Clinical ~~Therapy~~, Diagnosis, and Treatment of Chronic Brucellosis." Mos, 1958. 11 pp (Min Health ~~Preservation~~ USSR. Central Inst for the ~~Improvement~~ Advanced Training of Physicians). 200 copies (KL 40-58, 115)

ADAMOVA, N. A.

ADAMOVA, N. A. -- "Organizational Structure of Material Flow and the Utilization of Working Time in the Sewing Industry." Sub 13 May 52, Moscow Technological Institute of the Light Industry imeni L. M. Kaganovich (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Vechernaya Moskva, January-December 1952.